DELAWARE, LACKAWANNA & WESTERN RAILROAD
FREIGHT YARD & RAIL YARD, MULTIPLE UNIT LIGHT
INSPECTION SHOP
(Delaware, Lackawanna & Western Railroad Freight Yard &
Rail Yard, Hoboken Terminal MU Shed)
NJ TRANSIT Hoboken Rail Yard
Hoboken
Hudson County
New Jersey

HAER No. NJ-135-B

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U. S. Custom House
200 Chestnut Street
Philadelphia, Pennsylvania 19106

HISTORIC AMERICAN ENGINEERING RECORD
DELAWARE, LACKAWANNA & WESTERN RAILROAD FREIGHT & RAIL YARD,
MULTIPLE UNIT LIGHT INSPECTION SHOP
(Delaware, Lackawanna & Western Railroad Freight Yard & Rail Yard,
Hoboken Terminal MU Shed) HAER-NJ-135-B

HAER
NJ
9-HOBO,
10B-

Location: NJ TRANSIT Hoboken Rail Yard
Hoboken
Hudson County, New Jersey

UTM: 18.581315.4509810
Quad: Jersey City, New Jersey, 1:24,000

Date of Construction: 1930

Engineer: George J. Ray, Chief Engineer, Delaware, Lackawanna & Western Railroad

Architect: D.T. Mack, Chief Architect, Delaware, Lackawanna & Western Railroad

Present Owner: New Jersey Transit (NJ TRANSIT)
One Penn Plaza East
Newark, New Jersey 07105

Present Use: Vacant

Significance: The Delaware, Lackawanna & Western Railroad (DL&W) Multiple Unit Light Inspection Shop (MU Shed) contributes to the Old Main DL&W Railroad Historic District which is significant for its associations with suburbanization, commuter and passenger traffic, freight traffic, engineering and architecture. The MU Shed, built in 1930 when the DL&W converted the railroad from steam to electric power, provided for the routine inspection and maintenance of MU train cars and is significant as a representative of the early electrification of the DL&W.

Project Information: The demolition of the MU Shed is required to construct the Hoboken Yard B Modernization Project which is part of the larger Hoboken Terminal and Yard Master Plan. To mitigate the adverse effect, the State Historic Preservation Office stipulated documentation and salvage of the MU Shed, and rehabilitation of a set of MU cars. This documentation was undertaken by NJ TRANSIT in February 2001 to document the building.

Prepared By: Lynn Drobbin
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DESCRIPTION

The Multiple Unit (MU) Light Inspection Shop is located in the western part of Hoboken Terminal and Yard, an 80-acre facility that straddles the border of Hoboken and Jersey City in Hudson County, New Jersey. Hoboken Terminal is located on the west bank of the Hudson River across from lower Manhattan. Hoboken Yard is west of the New Jersey Transit (NJ TRANSIT) Hoboken Terminal, also known as the State and National Register listed Delaware, Lackawanna & Western Railroad and Ferry Terminal. South of the existing yard is a newly redeveloped area of Jersey City that was formerly part of the yard; north and west of the yard is the densely developed commercial area of the City of Hoboken.

Hoboken Terminal is the eastern terminus of the NJ TRANSIT Hoboken Division commuter rail service. This includes the Morris and Essex (M&E) Lines and the Bergen Lines. Hoboken Terminal also provides ferry service across the Hudson River to Manhattan, PATH (Port Authority Trans-Hudson) service to Manhattan via a tunnel under the Hudson River, and bus service throughout northern New Jersey.

The Hoboken Rail Yard is comprised of four distinct areas: the North Yard, South Yard, the Mainline Tracks and Yard B. The MU Building is located in the western section of Yard B, north of the NJ TRANSIT Morristown Main Line tracks and south of the North Yard. In addition to the MU Building, Yard B contains several tracks, two storage tanks and the former Electric Shop. One track is used to store construction equipment; one track stores flat and box cars that deliver track materials that are stored in Yard B, and three tracks are used by the diesel fueling/sanding lube oils station. A parallel route track to the lead track for the North Yard train storage passes through the northeast edge of Yard B. A large emergency fuel storage tank and a waste lube oils storage tank are also located in Yard B. The former concrete block Electric Shop, which is a single-bay portion of the former historic Engine Round House, is northwest of the MU Shed. The Electric Shop, abandoned by NJ TRANSIT in January 1999, was not considered eligible by the SHPO.

The MU Shed is a large, modified rectangular plan two-story building with a slightly pitched roof. The building is 480 feet long divided into 24 bays each 20 feet long. The westernmost 20 bays are 60 feet wide and two stories tall; the easternmost four bays are 84-feet wide and two and one-half story tall. A single-story section, noted as the "Lean-To", is situated on the north façade.

The structure consists of 25 steel bents supported by individual spread concrete footings which rest on piles. Each bent is composed of two sixteen-inch deep rolled steel I-beam end posts spanned by a built-up truss of back-to-back L-angles connected by gusset plates and rivets. A four and one-half foot high cast-in-place concrete dado wall surmounted by Transite panels mounted on steel framing make up the walls of the MU Shed. The Transite panels were

furnished by the Johns-Manville Company. Twelve-inch-deep rolled steel I-beam purlins span the main bent trusses and support the wood plank roof deck. Weather roofing is a four-ply built-up membrane manufactured by the Johns-Manville Company.

The roof is bisected by a large wire glass skylight the extends the length of the building. Twelve louvered sheet metal ventilators are located above the skylight at the ridge of the roof. Access to the roof of the building is provided by steel signal ladders at the mid-point of the south façade and at the north corner of the east elevation. Another ladder descends from the main roof of the MU Shed to the roof of the Lean-To section.

North and south elevations have multi-paned rectangular shaped, steel sash windows, furnished by the Truscon Steel Company. Windows are located on the first and second stories; window units are seven and one-half feet high and seventeen feet wide. Most panes are fixed; central portions pivot open. Approximately one half of the glazing is broken or missing; the steel frame has numerous areas of oxidation and loss of section. On the north side of the building, a single-story flat-roofed structure, referred to in original drawings as the "Lean-To", housed the air brake shop, electrical test room, toilets, locker room, offices and storage rooms. A small, shed-roofed concrete block addition (date unknown) with a single casement window extends from the south side of the building. This structure formerly served as a fueling station for diesel locomotives.

The east façade has four large 18-foot high, 13-foot wide openings with overhead steel roll-up doors that provided access for train cars; two rows of rectangular multi-paned steel frame windows are located above. Original doors, as evidenced by original drawings and historic photographs, consisted of steel double doors at each opening. Doors, which opened outward, had hinges and locking levers. Original elevations from 1929 indicate that the northernmost opening at the east elevation was originally to consist of two 10-foot high, 9 and one-half foot wide openings. However, these elevations were revised on drawings dated January 16, 1930 to the present configuration.

The west elevation, at the first story, has two smaller door openings with roll-up metal doors, a wood panel door pedestrian entrance, a sheet metal chimney and a small shed-roofed concrete block addition that houses a baking oven which was used to dry condensation from MU car motors. In front of the doors is a concrete loading platform accessed by a metal ramp and a flight of concrete stairs. The second story of the west elevation consists of three typical divided steel sash windows. Construction drawings from 1930 indicate that this elevation was originally constructed with three windows and a centrally located double door pedestrian entrance. A 40-foot tall steel oil tank is located at the northwest corner of the building; the 35,000 gallon tank provides a gravity-fed backup to the normal fueling operations in emergencies.

The interior of the MU Shed has a 60-foot wide track service area that is created by twenty-five riveted steel trusses which provide a clear span for the entire width of the building. Four rail tracks, three primary tracks and one shorter track, enter at the four openings at the east elevation. Track 1 and Track 2 extend the length of the building; Track 3 stops approximately 96 feet short of the west façade; drawings from 1950 indicate that the inspection pit under Track 3 was filled in and paved over. Historic drawings from 1950 also indicate that Track 2 was extended 40 feet to the west for mounted wheel storage; 30 feet beyond the west façade of the MU Shed and directly abutting the east wall of the remaining section of the roundhouse.

The current Track 4 is approximately 70 feet long and terminates at a plywood shed that houses compressors and dryers used for locomotive sanding operation. This equipment is used to pump sand from the hopper car, located on Track 4, into locomotives at the fueling station adjacent to the MU Shed. The sand is used to provide traction for diesel locomotives when operating under slippery track conditions. Original drawings indicate that a pair of tracks were originally located at the current location of Track 4. These two tracks terminated at a drop pit with a traveling table that was used for the installation of car trucks onto railroad cars. Car trucks are the wheels and frame upon which the body of the rail cars rest. No drawings were located that indicated when these two tracks were consolidated and the drop pits removed.

The three primary tracks, used for the inspection of the multiple unit cars, extend over 3-foot 6 inch deep reinforced concrete inspection pits for the their entire length; pits are provided with light, air, heat, and electric power. Each of the three primary tracks accommodated three multiple units, or six rail cars, so that a total of 18 cars could be inspected and repaired at one time. The floor between the concrete inspection pits, 16 inches below the top of the rails, is of reinforced concrete covered with Kreolite wood blocks furnished by the Jennison-Wright Company. Space between the blocks are filled with asphalt. In many sections of the shed, the wood blocks are deteriorated.

At each end of the building, supported by steel bents, are two overhead traveling cranes with a 25-ton capacity; each has an integral, smaller 5-ton auxiliary crane. Each crane is 40-feet long and travels on 80-foot wide steel crane runways that nearly span the width of the building. These cranes, powered by electric motors, were used to move train motors, train cars, and pantographs, the device for directing power from the catenaries to the trains. Four jib cranes (two 2-ton and two one-ton), that vary from 14 to 16 feet tall and reach approximately 15 feet, are built into the supporting structure of the overhead traveling crane at the west end of the MU Shed. The jib cranes, powered by electric motors, were used to move smaller objects. Two elevated wood plank walkways with steel pipe railings are suspended from the roof trusses. These walkways or "catwalks" allowed the pantographs to be repaired and the contact strips replaced. Stairs at both ends of the building provide access to the walkways. Interior lighting in

the MU Shed is provided by the skylight, the large windows and mushroom-shaped aluminum pendant fixtures that are suspended from the trusses.

The single-story section of the MU Shed, referred to as the "Lean-To" in the original plans, is divided into four rooms: a locker room with enclosed toilet rooms, a work shop, an oil room, and a stock room. The Lean-To projects 32 feet from the north façade of the MU Shed and is 20 feet tall. The exterior walls are similar to the main portion of the MU Shed - a low cast-in-place concrete dado wall surmounted by Transite panels supported by steel framing. Windows are rectangular divided-light steel sash. The interior walls and partitions are twelve-inch concrete block. Floors are cast-in-place concrete slabs over earth fill; the roof/ceiling is cast-in-place concrete slab supported by 24-inch deep steel I-beam rafters and 12-inch deep steel I-beam purlins. A concrete loading platform spans across the work shop, oil room and stock room; the loading platform narrows to three-feet wide to provide exterior access to the locker room. Added sometime after the construction of the MU Shed, is a concrete room housing electrical equipment. This structure was constructed adjacent to the west façade of the Lean-To and contained equipment to distribute electric power to the MU Shed. The exterior walls and roof slab of the sub-station are concrete; the interior wall is twelve-inch concrete block.

The locker room, 55 feet wide and 32 feet deep, is accessed by a door that opens to the interior of the MU Shed and an exterior door that opens onto a narrow extension of the exterior loading platform. Original plans show that the locker room was originally a toilet and locker room with 224 lockers, 56 wash basins, six toilets and seven urinals. This room is presently divided roughly in half by a metal stud and gypsum panel wall. The ceiling is the unfinished concrete of the bottom of roof slab; the concrete floor slab is covered with composition tiles. The eastern portion of the locker room has steel lockers around the perimeter. This portion of the locker room is filled with a large volume of debris. The western portion of the locker room has steel lockers around the perimeter and two toilet rooms built into the west end of the room.

The work shop, 16 feet wide and 32 feet deep, is accessed by a door that opens to the interior of the MU Shed and a sliding fire-proof door to the oil room. The room is noted on some original plans simply as office space, while other plans divide the room into office space and an "air tool room". Work benches line the east and west walls of this utilitarian space. A light jib crane projects from a steel column in the south wall. The ceiling is the unfinished concrete of the bottom of roof slab; the concrete floor slab is covered with wood block flooring of the type used in other areas of the MU Shed.

The oil room is accessed by a door that opens to the exterior concrete loading platform and a sliding fire-proof door to the store room; there is no entry to the oil room from the interior of the MU Shed. The oil room is 40 feet wide and 32 feet deep, with a 52 feet wide by nine-foot deep vault that extends beneath the exterior concrete loading platform. The floor of the vault, which houses a 5,000 gallon storage tank, is nine feet six inches below the floor of the oil room. There

are two 2,500 gallon tanks in the oil room. The interior oil room was inaccessible for inspection due to an extensive oil spill.

The store room, 60 feet wide and 32 feet deep, is accessed by a door that opens to the exterior concrete loading platform; there is no entry to the store room from the interior of the MU Shed. This utilitarian space has several metal shelves in varying states of disrepair scattered about the room. The ceiling is the unfinished concrete of the bottom of the roof slab; the concrete floor slab is covered with wood block flooring of the type used in other areas of the MU Shed. An office and entry vestibule shown on the original plans are no longer extant. A four-foot wide window with a shelf, where MU workers obtained material from the storeroom, has been removed and filled with concrete block.

HISTORICAL NARRATIVE

The Hoboken MU Light Inspection Shop is significant as a contributing resource to the eligible Old Main DL&W Railroad Historic District. The MU Shed, constructed to repair and inspect the railroad's multiple unit electric rail cars placed in service in 1930, represents the early electrification of the DL&W. The electrification greatly enhanced the DL&W's reputation as providing the most dependable suburban service of any railroad in the New York area for the next several decades. The MU Shed has retained its utilitarian architectural character and has not been significantly altered since its initial construction.

The Hoboken MU Light Inspection Shop was constructed by the DL&W Railroad in 1930 to service the new multiple unit cars that were placed in service in September of that year. The "multiple unit" consisted of two rail cars or a "married pair", one with a motor, the other without, but both carrying passengers. Multiple units were chosen to replace steam locomotives when the DL&W began electrification of the railroad in 1928. Conversion from steam to electrically powered trains was to improve the efficiency and reduce the costs of rail operations, relieve the traffic congestion at Hoboken Terminal, and create a cleaner quieter commute for rail passengers who did not like the coal, smoke, loud noise and rain of cinders from the locomotives.

Preliminary studies on electrification conducted by the DL&W indicated the potential for decreased operating costs and an increase in rail traffic due to improved service. Between Hoboken and Morristown, local trains would have their running times reduced over 20%. Besides cleanliness and the increased speed of local trains, electrification would mean scrapping the last remaining wood passenger cars. Other advantages of electrification included the elimination of a fireman, the lower cost of electricity versus coal, and a much simpler and less costly terminal operation. With steam locomotives, every train entering Hoboken Terminal had to have a switch engine uncouple and pull the cars into the yard while the road engine went into the roundhouse to be turned. Since the multiple unit trains could operate in either direction,

trains could run into the terminal; the engineer could walk to the other end of the train and start out again.

Work on the project began in March 1928 when DL&W President John M. Davis appointed a committee to study the feasibility of electrification. The committee studied the operating characteristics of the division, the type of rolling stock to be used, and the available options for electric traction power systems. The study resulted in the decision to use multiple unit cars instead of electric locomotives. Because they could be operated in either direction; multiple unit M.U. cars required little switching at the terminal; their use would also permit improved off-peak service due to lower operating costs and the fast acceleration of M.U. cars was well-suited to the DL&W, with its rolling grades on the right-of-way and closely located stations.

The fleet of multiple unit passenger equipment the Lackawanna placed in service in September 1930 was especially designed to fit the railroad's needs. Great efforts were made to design a coach that required little maintenance; the facilities for the repair of the MU's were also built with economy in mind. The "electrics," as they became known, improved the service the railroad offered the public. For an investment of $5,534,158, the DL&W was able to purchase the new motor cars, convert the steam coaches to trailers, and changed commuting on the railroad for generations.

The initial MU cars were two steam coaches that were converted to 3,000 volt DC multiple unit cars by General Electric at Erie, Pennsylvania in September, 1928. After tests on the converted coaches were successfully completed, an order was placed with Pullman Car & Manufacturing of Chicago, Illinois for 141 motor cars. Starting in December, 1929, the Trainmasters, Road Foreman of Engineers and other supervisors were sent to the General Electric Plant in Erie, Pennsylvania to receive training on the repair of the new MU cars.. As the Pullman Car and Manufacturing began to fabricate the motor cars, classes were also started to train Roundhouse foremen, pipe fitters and boiler makers; experienced in the repair of steam engines, on the repair and maintenance of pantographs, dynamotors and other pieces of MU car apparatus.

To provide for a lightweight frame, the MU cars were constructed of copper-bearing steel with aluminum sheets used in the roof panels and interior appointments. Wide aisles, steps and vestibules were included to permit rapid loading and unloading at stations. The floors were constructed of gray composition for secure footholds while the coach was moving; each car provided seating for 84 passengers in rattan seats. At one end of each motor and trailer car, operating cabs were built in the vestibules. These cabs had shatterproof glass, a folding seat, window shade, heaters and a control switch box. A distinctive headlight and a four-tone pneumatic horn was mounted on the roof. The exterior of the coaches were painted olive green; interior side walls were a light buff above the window sills, with green below and at the car ends. Ceilings were finished in a cream color.

The multiple units also provided some electrical innovations. 3,000 volt DC multiple units had never been used in this country and only experimentally, elsewhere in the world. The electrical equipment was patterned after the very successful 3,000 volt DC locomotives then in use by the New York Central Railroad. The high voltage on the motors required adequate ventilation; air for motor ventilation was drawn from near the roof to avoid interference from dust or snow. The DL&W fitted louvers above the vestibule of the motor car and air was first brought into a "zero velocity" chamber to permit any dust in the air to settle. The air was then pulled down through ducts to the motors. Canvas couplers were used to allow for movement between the truck and the car body. Motors, using bolted connections and special insulation, were equipped with a new type of lead that would permit easy change-outs.

Current for operating the multiple units was collected through slider-type pantographs. With the large number of low bridges and the high speed operation desired by the DL&W, it was necessary to develop a pantograph that maintained constant pressure on the catenary, while operating through the many changes in catenary height. A new pantograph design was developed by Nuall-Westinghouse that required few moving parts.

It was determined that the light repair and inspection facility for the multiple unit fleet should be in Hoboken so that the new MU trains could be repaired and inspected during the midday layover. This would maximize the time available for repairs by not having to send the trains to outlying yards and then back to the terminal for the evening rush hour. Heavy repairs to the multiple unit fleet were to be handled at the passenger car shops in nearby Kingsland, New Jersey, where the DL&W maintained most of its passenger cars.

The only available and most logical location for the light inspection and repair shop in the yard was a section of property that was occupied by the Hoboken Roundhouse. To permit construction of the MU Shed, the demolition of 18 stalls of the Hoboken Roundhouse was required. The Roundhouse was a late nineteenth century, circular, brick structure that enclosed a sixty-foot turntable and 38 stalls used for the servicing and repair of steam trains. The building was constructed upon filled ground in a location that was formerly a swamp, containing material of a peaty nature overlaying Hudson River silt, so that the foundation conditions were not of the best. The top of rail of the tracks in the building was 13 feet above low tide. The Building Department of Jersey City was unwilling to permit a pile cut-off at any point above low tide, which would have made the foundation work cost prohibitive. A test of the bearing power of the soil was made. Tests showed the soil would safely support 4,000 lb. per square foot. In order to keep well within the safe limits, the foundations were placed upon spread footings made large enough to require a soil pressure of only 1,000 lb. per square foot.

The new MU Shed contained three primary tracks for inspection and two short tracks for truck work on the north side. Each inspection track held 3 multiple units or 6 cars, so 18 cars could be worked on simultaneously. Two 25-ton overhead traveling Whiting cranes moved motors,

pantographs and lift cars for de-trucking and four one and two-ton jib cranes moved smaller equipment. The three primary tracks had inspection pits to facilitate repairs that were conducted under the MU cars. The pits were designed to meet the special nature of the inspection and repair work involved, being 42¾ inches deep to top of rails with rails set on pedestals, top of rails being 16¼ inches above the floor, which provides ample height to permit quick removal of electrical box covers and ready access for inspection and repairs from the floor level, and also to remove air compressors and dynamotors with the use of list trucks. In addition, this depth of the pit provides a satisfactory height for the inspection, repair and lubrication of motors, gear cases and other equipment located underneath the rail cars. Inspection pits were equipped with lights, installed in pit walls, staggered at 12-foot intervals. Adequate drainage of the pits was also provided to insure against any accumulation of water from snow and ice resulting from thawing out the equipment in bad weather. A novel feature was the two walkways with counterbalanced folding stairways (ladders) which were suspended from the roof trusses. Ladders could be raised out of the way when not in use. These walkways, located at the height of the cars, gave easy access for the repair of pantographs, headlights, main fuses and other items located on top of the cars. The entire building was equipped with an automatic fire alarm, fire extinguishers and firefighting apparatus.

Construction of the MU Shed was completed and it was turned over for inspection service when multiple unit service was inaugurated. The inspection of the 141 motor cars and 141 trailer cars, a total of 282 cars, was placed on a 1,500 mile basis, with an average of twenty cars per day that were scheduled through the shop for inspection. The cars were moved from the station to the shop as early in the morning as they could be released from train service. The inspection work was handled by a force of employees working eight hours per day, from 8:30 a.m. to 5:00 p.m. which permitted the handling of inspection work during the off-peak hours. The regular 1,500 mile inspection schedule covered a very thorough inspection that included the repair and lubrication of pantographs, control apparatus, dynamotors and air compressors, batteries and lightning arresters, air brake and signal equipment, also car inspection covering trucks, wheels, brake rigging, draft gears, understructure, safety appliances and the interior of cars. The inspection work, as described above, required an average of approximately four hours per two-car unit to complete. A complete inspection schedule was attached to each car; the schedule covered each operation in detail. Also attached to each car were certificates signed by the mechanic performing the work. The inspection report was then approved by the foreman in charge.

As soon as inspection work was completed, and the cars were tested on each track, they were moved out of the building with a 250-volt line. Cars were then moved to the passenger station by relay crews and were ready for service. All cars were returned to service the same day with the exception of an occasional unit that may have needed special attention. Repainting,

overhaul of motors, wheels, trucks and pantographs were conducted at the Kingsland Shops in nearby Lyndhurst, New Jersey. However, during World War II, when the Kingsland paint shop was closed, painting was transferred to Hoboken. All multiple–unit cars were sent to Kingsland Shops for complete overhauls at eighteen-month intervals or at approximately 75,000 to 85,000 miles.

The MU Shed was designed by D.T. Mack, Chief Architect of the DL&W and George J. Ray, Chief Engineer of the DL&W. Mack also supervised the design of Lyons Station on the Gladstone Branch in 1931; Lyons was the last rail station to be constructed in New Jersey by the DL&W. George J. Ray was hired by the DL&W in 1903 to assist Chief Engineer Lincoln Bush. Ray assumed this position in 1908 when Bush resigned and went into private practice. In his post as Chief Engineer, one of the most important positions in the railroad, Ray supervised the design and construction of the New Jersey and Nicholson Cut-Offs, track elevation and DL&W electrification. Ray served as Chief Engineer until 1934, when he was appointed Vice President and General Manager of the DL&W, a position which few Chief Engineers ever attained. Ray retired from the DL&W in 1946.

The total cost of the DL&W electrification was $16,946,034 including the new MU cars. To pay for this huge expense, the railroad issued bonds that would be due in 1955. The inauguration of the new electric train service went so smoothly, that only four months after the entire system was complete, the MU trains had an on-time performance of 99.4%. By the close of the 1950s, even with the MU equipment approaching thirty years of service, the railroad's on-time performance was 98.5%. This was thought to be largely due to the light repairs and routine maintenance conducted at the MU Shed. The electrification greatly enhanced the DL&W's reputation as providing the most dependable suburban service of any railroad in the New York area for the next several decades.

The original multiple unit cars or, "green monsters" as they were later called, remained in service until 1984 when the railroad was re-electrified from 3,000 volts DC to 27,000 volts AC. At that time, the vintage multiple unit cars were retired along with many of the structures that were constructed during the original electrification. The DL&W Hoboken MU Light Inspection Shop continued to be used for the repair of the electric trains until 1987 when the construction of the NJ TRANSIT Meadows Maintenance Complex (MMC) in Kearny made the building functionally obsolete. The MMC is currently used for maintenance work on the NJ TRANSIT system-wide fleet of locomotives and passenger cars. After the construction of the MMC, the MU Shed continued to be used by the railroad to house the hopper cars, compressors and dryers used in sanding operations to provide traction for trains. Fuel lines from a 300,000 gallon diesel tank, located at the corner of 18th Street and Marin Boulevard in Jersey City (just outside of the yard) also continue to travel through the MU Shed. A portion of the locker room in the Lean-To continues to be used by the railroad's Mechanical Department personnel. In 1999,

NJ TRANSIT leased the MU Shed to the United Railroad Historic Society who used it to restore and repair historic trains. The United Railroad Historic Society vacated the MU Shed in October 15, 2000 in anticipation of the demolition of the structure in 2001.

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All of the original engineering drawings pertaining to this structure were discarded by Conrail, predecessor to NJ TRANSIT, however, approximately fifty of these drawings were microfilmed in 1978 prior to their disposal. The microfilm copies of the original drawings are stored in the NJ TRANSIT Engineering Department, One Penn Plaza East, Newark, New Jersey.

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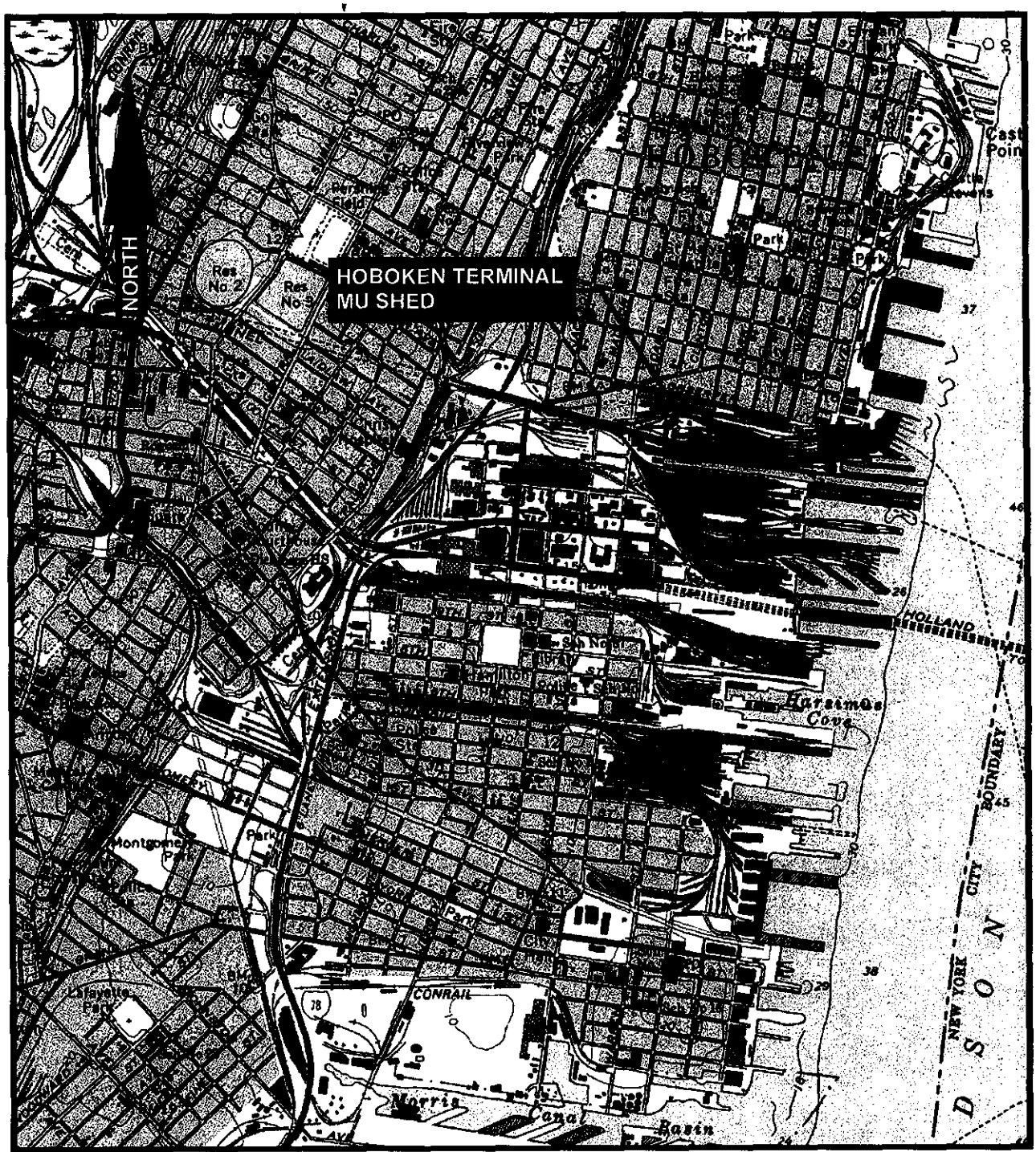
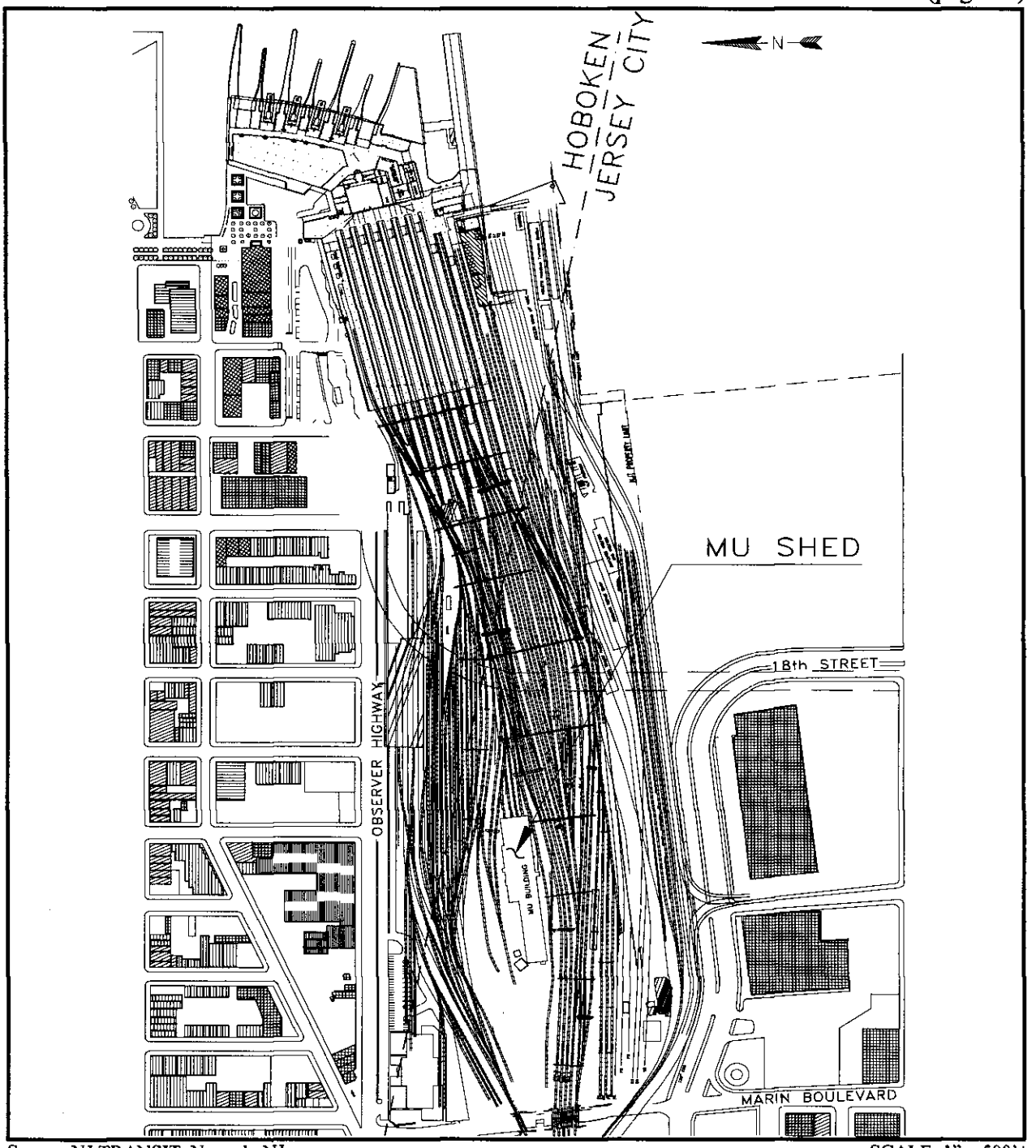


SOURCE: USGS JERSEY CITY, NEW JERSEY QUAD. SCALE 1:24,000



Source: NJ TRANSIT, Newark, NJ.

SCALE: 1" = 500'±

HOBOKEN RAIL YARD SITE PLAN
November, 2000